

to interstate standards with full access control and grade separated interchanges; 3) a new bridge over the Des Plaines River; and 4) a facility consistent in design and function to the regional expressway system for which it would connect.

In comparison, the Lemont Bypass Alternative ranked second in reducing travel time. Travel time benefits of this Alternative were primarily due to efficiencies gained by providing a continuous arterial for north-south travel within the Project Corridor. However, the Alternative proposes a tollroad/freeway within the northern one-quarter and a principal arterial within the southern three-quarters of the alignment. The tollroad/freeway facility will provide a new bridge over the Des Plaines River. The transition from a tollroad/freeway facility with full access control and grade separated interchanges to a principal arterial with at-grade signalized intersections and limited access control caused frequent stops at intersections resulting in lower overall travel time savings compared to the Tollroad/Freeway Alternative.

The Enhanced Arterial Alternative ranked third in reducing travel time. Travel time benefits of this Alternative were primarily associated with improving existing arterials and maximizing the use of three existing bridge crossings within the Project Corridor over the Des Plaines River. However, efficiencies were lost due to lower operating speeds and frequent stops at intersections.

A cost analysis was conducted to assign a dollar value to the overall travel time savings achieved by the Tollroad/Freeway, Lemont Bypass and Enhanced Arterial Alternatives. An average person time value of \$13.76/hour was used. This number was identified from the Bureau of Labor Statistics (August 2000), as the average hourly rate for a private employee. Table 3-3 presents the productivity cost savings for each Build Alternative compared (in

year 2000 dollars) to the No-Action. The annual savings are based on 250 working days per year. The average productivity cost savings estimated for the Tollroad/Freeway Alternative was \$1,479 per vehicle per year, a 27 and 195 percent savings over the Lemont Bypass and Enhanced Arterial Alternatives. Appendix B presents travel time analysis methods.

Table 3-3 Annual Productivity Cost Savings per Vehicle over No-Action Alternative					
Exhibit 3-8 Destination	Job Center		Alternative		
			Tollroad/ Freeway	Lemont Bypass	Enhanced Arterial
		Naperville/Aurora	\$1,387	\$998	\$269
		Lisle	\$1,630	\$1,287	\$493
		West Chicago	\$1,680	\$1,422	\$373
		Downers Grove	\$1,712	\$1,406	\$550
		Woodfield	\$1,726	\$1,485	\$630
		Oakbrook	\$1,394	\$1,032	\$648
		O'Hare Airport	\$1,175	\$952	\$563
		Midway Airport	\$1,128	\$740	\$482
		AVERAGE	\$1,479	\$1,165	\$502

Work Trip Destinations

In addition to travel times, the benefit of the Alternatives toward consolidating and shortening work trips was examined. CATS work trip destination data indicates that current work trip destinations from the Project Corridor include scattered, longer-distance trips to destinations within south Cook County and the south side of Chicago, as well as outside the region within Kendall and Grundy Counties.

Compared to the Lemont Bypass and Enhanced Arterial Alternatives, the travel time analysis found the Tollroad/Freeway Alternative as achieving the greatest overall travel time savings to the DuPage job centers. The reduced travel times would improve access to the DuPage job centers and ultimately concentrate work trips toward closer job centers as opposed to maintaining current scattered, longer-distance work trip patterns to other parts of the region [\(ACG, 2000\)](#). In addition, improved access to the DuPage County job centers would create a secondary benefit of reduced job competition within secondary employment centers for the Project Corridor within southern Cook County and the south side of Chicago. These are areas of high unemployment. Redirecting Project Corridor labor toward jobs in DuPage County would decrease competition for jobs in south Cook County and the south side of Chicago and increase the likelihood that residents of those areas would find employment closer to their homes, thus reducing their work trip times and distance [\(ACG, 2000\)](#).

Finally, a Transportation System Improvement would encourage growth of existing job centers. The Tollroad/Freeway Alternative, and to a lesser degree the Lemont Bypass and Enhanced Arterial Alternatives, would sustain and encourage growth of existing job centers within DuPage County and aid in keeping the urbanized areas compact by making it easier for employers to access their workers, suppliers and markets from existing locations, thus diminishing the incentives to relocate further out in the region.

To conclude, the travel time analysis ranked the Tollroad/Freeway Alternative first in reducing travel times from the Project Corridor to suburban job centers in DuPage and western Cook Counties. The analysis found the Tollroad/Freeway reduced travel times on average 20 percent and up to 25 percent, and at rates 33 and 185 percent better than those of the Lemont Bypass and Enhanced Arterial Alternatives. By improving access to jobs within DuPage and western Cook Counties the Tollroad/Freeway Alternative would shorten and consolidate scattered work trips and reduce job competition in the high unemployment areas of south Cook County and the south side of the City of Chicago. This would aid in keeping the urbanized areas compact by supporting growth of existing suburban job centers.

3.4.2 Achieve Transportation and Land Use Planning Goals

Will County is among the fastest growing counties in Illinois [\(U.S. Census, 1990\)](#). This growth has concentrated in the county's northern portions, including the Project Corridor. The Project Corridor accounted for 41 percent of the county population in 1990 and is expected to encompass 52 percent by 2020. Demographic analysis found growth would continue at projected rates regardless of the Transportation System Improvement [\(ACG, 2000\)](#). Accommodating growth in a manner that protects resources and maintains a high quality of life are priorities of county and local governments of the Project Corridor. To this end, these government entities have adopted land use plans. All land within the Pro-

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ject Corridor falls under the jurisdiction of a county or municipal plan. Implementing a project Alternative that enables achievement of planning goals was the second of the four principal needs for which the Alternatives were evaluated. Performance in achieving planning goals was the overall criteria for evaluating the Alternatives. Consistency to currently adopted land use and transportation plans was the performance measure.

Plan Consistency Review

Planning staff of Will County and the Project Corridor municipal governments reviewed the project Alternatives for consistency with their respective land use and transportation plans. The review ranked the project Alternatives as to their consistency with the policies, goals and objectives of their jurisdiction's adopted land use and transportation plan. The Alternatives were ranked on a scale from one to five with one being the least and five being most consistent. The individual county and municipal rankings were then compiled into an overall Project Corridor average.

The plan consistency review found the Tollroad/Freeway Alternative most consistent with the plans of county and local government. The Lemont Bypass, Enhanced Arterial and No-Action Alternatives followed the Tollroad/Freeway Alternative in rank order. Table 3-4 presents the Project Corridor ranking. Plan consistency review methods and findings are further defined in Appendix B.

In addition to the above review conducted by planning staff, elected officials were surveyed as to the effectiveness of each Alternative toward achieving the planning goals and objectives of their respective jurisdictions. The survey was distributed to local government officials located within and bordering the Project Corridor, as well as Will County. The survey generated a 100 percent response rate and found 90 percent of the total respondents ranked the Tollroad/Freeway as the Alternative that helps them achieve the goals set forth in their local community land use and transportation plans most efficiently. Segmenting out Will County and the seven local municipalities within the Project Corridor, the survey found 100 percent ranked the Tollroad/Freeway Alternative as most consistent with their local comprehensive plans. Table 3-5 presents the survey questions and responses. Survey methods and findings are further defined in Appendix B.

Table 3-4 Plan Consistency Review Results (Scale 1-5: 1= Least Consistent, 5= Most Consistent)	
Project Need/Alternative	Overall Ranking ⁽¹⁾
No-Action Alternative	1.5
Tollroad/Freeway Alternative	4.5
Lemont Bypass Alternative	3.1
Enhanced Arterial Alternative	2.3

(1) Overall Ranking is the average of individual rankings of county and local governments within the project corridor.

Overall Plan Consistency

Based on the plan consistency review and local officials survey, an overriding planning goal common among the municipal governments within the Project Corridor is to focus commercial and industrial development in compact areas where adequate infrastructure exists. The Tollroad/Freeway Alternative facilitates this goal by providing a direct north-south roadway to focus commercial and industrial development. Compared to the other Alternatives, the Tollroad/Freeway Alternative would act to draw-in and concentrate development adjacent to interchanges and along the facility [\(ACG, 2000\)](#). This would provide

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local government the opportunity to focus compact development within their jurisdictions more effectively.

As with the Tollroad/Freeway Alternative, the Lemont Bypass would provide a continuous north-south roadway to focus commercial and industrial development. However, the Lemont Bypass has limited access control. The reduced access control reduces the development incentives promoting nodal development provided by the full access control and interchanges of the Tollroad/Freeway Alternative. Finally, the Lemont Bypass would also place higher volumes of traffic on Gougar Road. This in turn could encourage development in areas inconsistent with existing and planned land use, such as commercial development within areas planned for residential development along Gougar Road.

Table 3-5 Results of Elected Officials Survey	
Question	Response
1. How would you define the development that has taken place in and around your community since the early 1990's?	65% Rapidly Increasing 25% Increasing 10 % Steady 0% Decreasing 0% Rapidly Decreasing
2. Future development in and around my community will __?	63% Rapidly Increase 32% Increase 5 % Remain Steady 0% Decrease 0% Rapidly Decrease
3. Existing travel times within the Project Corridor are __?	90% Not Acceptable 10% Acceptable
4. Which of the five (5) Alternatives would help you achieve the goals set forth in your Local Community Land Use and Transportation Plans most effectively?	90% Tollroad/Freeway 5% Mass Transit 5% Enhanced Arterial 0% No-Action 0% Lemont Bypass
5. Which of the five (5) Alternatives is most consistent with your Local Comprehensive Plan?	89% Tollroad/Freeway 5.5% Mass Transit 5.5% Enhanced Arterial 0% No-Action 0% Lemont Bypass

As for the Enhanced Arterial Alternative, this Alternative with its multiple alignments would provide less focus for development because north/south travel would be dispersed among several local roads throughout the Project Corridor as opposed to being focused along one main thoroughfare as with the Tollroad/Freeway and Enhanced Arterial Alternatives. Therefore, development would be more dispersed throughout the Project Corridor. Also, as with the Lemont Bypass, the Enhanced Arterial Alternative would provide limited access control. As a result, the development incentives promoting nodal development provided by the interchanges and full access control of the Tollroad/Freeway Alternative would be lost. Finally, the Enhanced Arterial Alternative would increase traffic volumes on its multiple alignments that could in turn encourage development in areas inconsistent with existing and planned land use.

From a local transportation plan perspective, the Tollroad/Freeway Alternative would best enable municipalities to achieve an overriding planning goal of providing a safe and efficient local transportation system. The access control provided by the Tollroad/Freeway Alternative would enable local government to better plan and implement a tiered local roadway system that collects and routes traffic to facilities of increasing capacity which connect to strategically placed interchanges along the Tollroad/Freeway facility. This tiered network would improve traffic flows and efficiencies and would provide local government an additional opportunity to influence and control commercial development. In addition, the Toll-